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The Making and the Taking of Life*

Introduction

THIS TALK MIGHT perhaps have been entitled *Lords of Creation*, but in fact I have called it *The Making and the Taking of Life*, which means the human biological problems of our day. I can assure you that I will not pour upon you an excess of figures. What I propose is to start with certain considerations concerning the making of life in bulk—reproduction and blind multiplication—wisely and often now called the population explosion: and then proceed to the stage so far reached in the making of life by deliberation—that is to say when the production of children becomes the planned and deliberate action of free and responsible individuals. Then I propose to consider briefly certain qualitative aspects of the situation, before going on to some ethical considerations. These will be as introduction to a variety of topics regarding the taking of life—at all stages—but *not* including warfare and capital punishment. Finally I will try to conclude with a brief integration which will firmly stress the need for freedom and individual liberty, and the inevitable growth of responsibility which springs from increasing knowledge. I must add that I speak as a zoologist and not as a medical man.

Making in Bulk

In a sense we can define life—or an aspect of life—as the process in which and by which assemblages of organic molecules separate themselves from, and perpetuate themselves in, an alien and chemically more simple environment. Speaking loosely, we can say that the resultant organisms are highly successful in this process, and their multiplication in space and time is continuous, except in so far as it is checked by particular limiting factors. In our own human case the increase of knowledge allows us progressively to remove earlier limiting factors which more primitively have held human populations in check. The growth of agriculture, the domestication and improvement of plants and animals, the increase of law and order and removal of petty strife, the improvements in sanitation and water supplies, the growth of long distance transport (both across the oceans and by rail), the understanding and then the control of epidemic diseases, and more recently the advancement of medicine at a more personal level—all these represent the pushing back of factors previously instrumental in limiting human populations and checking their increase. And very fortunate we are, for personal elimination by strife, starvation or disease is undeniably uncomfortable—and to be avoided both for ourselves and for others.

The net result, the population explosion, is of course well known to many educated people to-day. Known it may be but resultant sensible joint reactions and planning remains astoundingly inadequate. So it is that world population at about 200 million at the time of Christ grew gradually to near 450 million in 1600—to 2,000 million when I was an undergraduate only thirty years ago. Since then—in what seem to be a very few short years—it has leapt to 3,000 million and is increasing so as to double again by the end of the century: and so to continue to double at progressively shorter intervals—if we remain successful in holding back those limiting factors which are so uncomfortable. This rate of multiplication, its real meaning and its dangers, are very hard to drive home—though I hope not to an audience such as this. Here are three ways of regarding what is happening. The 50 million dead of two world wars are replaced in less than 400 days. The City of Oxford is added daily to the world. Of all the individuals who have ever lived on earth 3 to 4 per cent are alive at this moment.

* The substance of a lecture: Oxford Humanist Group, March 5th, 1963.

Yet, let us recognize, this fantastic rate of population increase has been neither planned nor desired by anybody. Most of it is a mere by-product of beneficence. We have striven to check petty strife, to improve transport, water supplies and medical care because of our, and our recent forebears', joint personal kindliness and feeling for the well-being of ourselves, and of other individuals scattered throughout the world. We have neither planned nor desired great population increases on the world scale, nor the national scale. They have happened, fundamentally because of kindness and compassion, the effort of the many and the initiative and expertise of the few.

To take a simple and compact example, that of British Guiana—where I was this time last year. It is typical of those places where malaria has been banished with the sudden coming of D.D.T. at the end of the last war. Malaria was eliminated through the biological skill and initiative virtually of one man; infantile mortality plunged. And now B.G. at 3·4 per cent per annum has almost the highest rate of population increase in the world—doubling in under twenty years. Let me stress—this is a by-product of beneficence. And the advantages of great population increase are few and the disadvantages very many. I wrote recently:

> There simply are *no* real and admirable advantages in any greater further increase in world population. It cannot sensibly be argued that numbers must mount in order that the mass market may increase for particular material objects. The increase of a mass market is not a true measure of advance. Likewise, reproduction so as to build bigger armies, whether of infantry or technicians, is *not* admirable advantage.
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> Not only are there no discernible and admirable advantages in further population increases, but the disadvantages are so real and many, quite apart from poverty and undernourishment. What is the correlation between mounting numbers and national pugnacity? It is surely all too often positive. Was not World War II initiated in the name of *Lebensraum*? We hear now, too, of stress syndromes which are known to afflict our fellow mammals under conditions of high population-density and resultant struggle. And urban man himself most certainly is not immune: neurotic symptoms multiply,
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> The despoliation of the natural environment, the extinction of other species of strange and beautiful animals and plants, the fouling of rivers, the oiling of birds and beaches, urban sprawl and traffic chaos, these are all direct consequences of excessive increase in numbers. Space itself already becomes a rare commodity as the conurbations grow, and cities become places of frustration rather than of culture. Even worse, for the full development of important aspects of the individual, is the progressive difficulty of finding solitude. Likewise, as local numbers mount, so too diminishes the feeling of personal "relatedness" with the majority of those one sees.
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> The population explosion jeopardizes whatever worth, development and evolution—whatever happiness, opportunity and enlargement of personality—we may cherish for our children and future generations.*

Indeed the making of people—the making of human life—progressively *is* recognized to be excessive and to be imposing the most severe strains. The pushing back of "natural" limits to population growth is highly desirable because these factors of limitation are uncomfortable. For a while we can repel them, and then again we seem to be up against new limits—at present food shortages primarily—though people can go on breeding in a surprising manner even when fundamentally undernourished or underfed.

Great efforts are made to meet food shortages. There is a most fortunate and widespread, though historically very recent, interest in the well-being of others. OXFAM typifies this kindly feeling for the needs of those at a distance—though, with some other organizations, sometimes one feels that the heart drives rather than the head. I do not want here to go into the problems of potentialities versus actualities in these matters of food production world wide. What matters is the relative rates at which populations and supplies increase. So far despite all efforts they run neck and neck, and supplies are certainly not gaining significantly. Yet the analogy of a race is thoroughly bad, for the one thing clear about a race is that it has an end. In matters of population and food there is only perpetuity or disaster.

To deal with the major world problem we must of course *both* increase food supplies *and* reduce multiplication. Yet so far the World Health Organization has been impeded by the Roman Catholics in all activity which would

* "What are people for?" in *The Humanist Frame* edited by Sir Julian Huxley. 1961. Pp. 377-8.

help to provide even advice on restraint through contraceptive practice—that more comfortable substitute for the distressing "natural" modes of population limitation.

Perhaps we may gain perspective by pondering the query "What are people for?" and then we may see even more clearly the dangers of excess. Even if "What are people for?" is too difficult a question to answer we can at least probably agree some of the area for which it is worth striving, and then review the staggering population increases in relation to that goal.

To clear the argument, it is perhaps easy first to agree what are *not* among human objectives. We do not believe that the aim is the co-existence of the maximum of living human flesh. The present total is about 120 million tons.

> Obviously we do not believe that humanity's proper destiny is the breeding of cannon-fodder (or nuclear ninepins); nor the production of a multitude who will have to live in squalor and hunger; nor the production of an enlarged environment for human parasites; nor is our human objective the production of the largest possible market for the manufacturers of material objects.
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> No. Our jointly agreeable objectives are in the realms of the "good life", the fulfilment of individuals, the achievements of societies and cultures, and the perfection of humanity in terms of biological evolution. There may, indeed, be a large measure of agreement if we attempt to define the objectives in human life in some such terms as these: that every individual shall be born a loved and wanted child, in an environment which will, in liberty, allow the full development of all the attributes with which he is endowed, physical, mental and spiritual. We desire, at the same time, a continuation of human evolution, both genetic and psychosocial, such that gradually may be produced a population in which the many shall possess a stature (or quality) which is rare indeed to-day.*

And now we must turn from the making of people in bulk—the by-product of beneficence—and consider the much more rational making of people by deliberation.

Making by Deliberation

These are the years of evolution from the old blind reproduction, something haphazard, to the responsible use of personal freedom. In the western world, at any rate the British, Scandinavian and North American world, advance is fortunately fast. Already in the United Kingdom it is estimated that probably 70 per cent of all children are wanted children deliberately conceived. But so far deliberate reproduction, family planning with the aid of contraceptive practices of one kind or another, only extends to a maximum of perhaps 10 per cent of world population. There is no time here to trace the growth of what is known in this country as the family planning movement. After earlier pioneers and experimenters, it is well to remember that it is still less than fifty years since the American Margaret Sanger—who is still happily alive—was imprisoned in New York for helping poor mothers not to be burdened with still more unwanted children; and Marie Stopes in this country was embroiled in the most bitter controversy and struggle.

Suffice it must to say that the family planning movement grew upon the view that women should—since they bear the heavier burden in reproduction—that women should be responsible for and be able to plan reproduction in freedom—so that children should first be wanted and then deliberately conceived—thus turning blindness into deliberation, and reproduction into the responsible decisions of free individuals.

Kind and Quality of Making

This is of importance whether the making of life is in bulk or by deliberation, because all people are *not* the same—by inheritance they differ much from one another both in obvious ways and in finer points—though of course they share the great mass of their genes in common so as all to be classified as human. All men have —or should have—equality of opportunity, of freedom, dignity and respect—but demonstrably they do differ anatomically, intellectually, and so on as between individuals, and as between groups and within groups. There should always be equality of opportunity but it is foolish to fancy that all have the same capacity to make use of opportunity—for example, in higher education.

In these matters, no suggestion is being made of superiority or inferiority, no judgements are being made, but simply a statement of differences. Superiority and inferiority are meaningless unless a proper reference is defined. Many

* *Ibid.* Pp. 373-4.

qualities are by no means evenly spread through all "races". To take an extreme and absurd but true example—size and basket ball—the small and elegant people of Siam will always be "inferior" to the Americans—whose average Olympic team height was 6 ft. 10 in. It is also true that if you like to use musical aptitude as a criterion of superiority then you will probably be happier in Central Europe rather than in East Anglia. It is also true that people who have any particular quality in high degree are more likely on average, to have comparable children than those who possess that quality in lesser degree. These are matters of probability, betting if you like—and inherited variations are evident throughout all plants and animals. Yet, in so far as people are different in some of their inherited attributes, differences in actual fertility may come to be of great importance—differences between great groups or "races", or within limited populations which may call themselves nations. This was in the minds of those who marvelled, or were dismayed, by the so-called "spawning of the English" a century ago; or have been alarmed at the "Yellow Peril"; or have been saddened by the, probably temporary, adverse differentials which appear within a population during the period of first spread of contraceptive practices.

What I am driving at is the importance of differential fertilities, whether simply occurring while the making of life remains a blind bulk activity, or contrived or stimulated when the making of life has at last become a matter of personal responsibility in freedom.

What this amounts to at the present stage is that, with the passage of time, differential fertilities change the human complexion of the world, or of parts of the world. This of course is true of other species too. If the Chinese, as they do, now breed faster than the British, then in years to come the proportion of world population which is Chinese may be relatively greater than now and the proportion which is British will be relatively less. Some will feel the prospect admirable, and others will think it sad. Likewise take Fiji: there the immigrant people of peninsular Indian origin now breed a good deal faster than the indigenous Polynesians—so that the whole complexion of the population changes. The local political implications are great. Canada, with its somewhat separate French community, feels a comparable problem. Again, in British Guiana (though to simplify a little) those of peninsular Indian origin, who are mainly rural and of one political party, now multiply faster than those of African origin who are mainly urban and of the rival party. The balance tilts and, if the voting age is reduced to eighteen, the tilt to the former party will be faster still.

There is no time now to extend this line of thought, but it is of great importance, and must be recognized, both on the large scale and on the small—both between nations and within nations.

Differential fertilities are always to be expected and therefore change is inevitable.

Now that the making of life, in our present sense, becomes progressively more deliberate, the realities of differentials in actual fertility will likewise progressively become more prominent. Whether in fact there emerges a will to do so, certainly the opportunity arises to steer—or to refrain from steering and take the consequences. If a vigorous and highly patriotic and uninhibited people were deliberately to arrange—for example by differential taxation and public pressure—not only to limit the total of their breeding—and that they must do—but to build differentials between their people of most and of least ability and vigour, some astonishing results might appear in two or three generations. This might well happen.

The essential core of this argument is that not only is there responsibility for how many we make, but for what we make as well.

Ethical Considerations

While human multiplication remained the chief objective, even duty, of life in a harsh environment, ethical considerations could remain relatively dormant. There may be some wonder, in the mind of the observer looking back, at the lack of clash between the contemporaneous earlier admonitions to "reproduce and fill the earth" and to "holy chastity". Yet always new knowledge brings new responsibilities and new ethical problems, whether in the realms—say—of nuclear physics or of reproduction. In these days when reproduction

becomes deliberate, new ethical problems inevitably proliferate. Not only Hamlet's "to be or not to be", but now "to create more life or to refrain".

Now here is a matter which I will not embark upon in detail, only mention as one more piece to be fitted into the puzzle whose completion may provide mature perspective. Ponder the modern techniques which allow, for example, artificial insemination, and recognize the new ethical problems and worlds of responsibility induced by the new possibilities of creation. There *could* be the deliberate making of human lives of a kind previously impossible—for reasons of both space and time. But modern transport, plus novel techniques for the long-term storage of human semen, soon makes possible the strangest of genetic mixtures. Ethical considerations quite inevitably—and entirely properly—impinge most powerfully upon the thoughts of the educated. I draw attention to new realms but do not propose to go further here. The existence, of new ethical problems and responsibilities as an inevitable accompaniment of new knowledge, is what I wish to stress.

The Taking of Life

I have already said that I do not here propose to discuss either warfare or capital punishment. Nor will I embark upon road accidents, murder and things of that kind.

Ethical problems concerning the taking of life may spring into prominence by mistake or because, for example, deliberate contraceptive intent has failed; or for reasons of defect; or for reasons which are personal in some other way. Here are some examples of the problems of "taking", starting with a laboratory technique and mounting up to euthanasia.

Reductio ad absurdum—no one presumably condemns the throwing away of unwanted tissue cultures of human cells, which might have been nurtured carefully for years—yet assuredly those cells possessed "life"—and human life at that.

The surgeon may, for therapeutic reasons and with valid consent, cut away living tissues—even cut away reproductive organs, so taking away "life" both actual and potential.

To go further—consider the tiny human embryo which grows into a foetus and later into a child. Any tampering here raises emotional, legal and theological issues which vary much in time and geographically. Yet abortion is a world-wide practice, permitted in some countries, condemned in others. The Japanese, using it as their traditional method of limitation, cut their excessive birth rate from thirty-four to seventeen per thousand in five years around 1950. Hospitalization was good and 1½ million abortions a year was acceptable, and only seemingly clumsy to those with knowledge of more convenient methods of contraception.

In this country thirty years ago Mr. Justice McCardy said in open court that he could not conceive it ever to be right that a woman should be forced to bear a child against her will. He was roundly condemned for his kindliness. Our local emotional, legal and theological tangle continues to this day—so does the multiplicity of illegal abortions. We have a vigorous Abortion Law Reform Association which puts forward Private Members Bills in Parliament to cover stated categories of cases. This aspect of the problem of taking life is a very live issue—more especially, recently, when linked with probable defect or drug-induced monstrosity.

Proceed to a slightly later stage. At a particular instant the foetus becomes a separate air-breathing entity—a baby. The taking of the life of a baby is infanticide—in the past a widespread practice for a variety of reasons. As a fact, in countries which call themselves civilized, infanticide is now regarded as inappropriate, unethical, illegal, damnable or call it what you will. But here comes a difficulty—vividly in the minds of many from the recent thalidomide controversy. It is only at birth that gross defect or monstrosity becomes conveniently—or horribly—visible. And it may take a vast number of different forms of varying degrees of severity. Suitable action is a matter of intense heart searching. Emotions are very powerful—and not all in one direction. The Liège trial demonstrated a clash of opinion most vividly. The thalidomide affair has alerted people's consciences and stimulated thought on a most difficult topic in a way that the far more numerous non-thalidomide monstrous or defective infants have never done. In the Liège community the evolution of public opinion seemed to have forged ahead of the law.

Roughly, about 500 thalidomide-damaged babies were born in this country and about half of them survived. The actual figures do not matter—within a few hundreds—for the total is small in proportion to the gross total of about 15,000 badly defective babies born annually in the U.K.—for combined reasons of faulty heredity and uterine environment. The thalidomide affair will have done good if it has brought more fully to public consciousness the problem of this "normal" crop of gross defect.

The problem of the severely deformed infant, whether mentally or physically deficient, has facets which are emotional and ethical, rational and traditional, of the head and of the heart. The suffering of a child with gross physical deformity, even after surgery or partial alleviation with gadgets, can be immense. Additionally, there is the mental suffering of the parents, and often of the siblings too, if the mother tries to compensate for the disability by so much devotion that they obtain insufficient love and care. Dogmatic, but varied, assertions based on clear consciences have been many, but few seem to have recognized, at least in letters to the Press, two fundamentals. The one is that this problem has both physical and temporal degrees, and the other is that there is an evolution of conscience among even the most devout of individuals and the most dogmatic of groups, with the passage of time, and from one generation to another. The history of the introduction of anaesthetics provides an admirable example.

In June 1960* the Bishop of Exeter preached in Torquay to the 128th Annual Meeting of the British Medical Association. He took as his text the couplet

> Thou shalt not kill; but needst not strive
> Officiously to keep alive.

The unfortunates whom he had in mind on that occasion were the elderly, desperately and chronically sick—whose mortal misery *could* be extended a little further by modern technology. He did not include—as perhaps he might have done—the infants born grossly defective—infants who, under "natural" or more primitive conditions, would indubitably die at once or very soon—while now, with technical aids, they may linger longer or even survive for years.

The ethical problems here presented are most distressing. At present the appropriate treatment of deformed infants is a matter for the consciences of individuals. It is difficult to see how the problem of the deformed infant—including mental and physical deformation—can be dealt with except by special legislation, since "sound" and fashionable medical practice will never be able (except in the case of the occasional perceptive midwife or obstetrician) to deal with it without legislation. A doctor cannot yet openly help without committing an offence.

Is it rational—is it evil—is it ethical—having created an infant burdened with gross defect, in compassion to end the life that has scarce begun?—to end the one in the expectation that a better may be deliberately created? That happened surreptitiously at Liège and was condoned. Will the evolution of conscience, law, or social acceptability, come to allow such termination of defect to be regular practice under suitable professional safeguards? I ask the questions. Consciences and opinions are greatly divided. There are noble, educated and wise people holding totally opposite views on all these questions. The head and the heart, propriety and expediency, struggle together in seeking solutions. The answers, and the practices approved, will doubtless continue to vary from land to land—for example, infanticide in one will be called infantile euthanasia in another.

In the House of Lords in 1936 Lord Dawson of Penn, that great physician, said "This is a courageous age, but it has a different sense of values from the ages which have gone before. It looks upon life more from the point of view of quality than of quantity." That was in fact said in a discussion on euthanasia.

So continuing our survey of the making and the taking of life, we come to suicide—a matter of personal decision with grave social overtones. Again the problem is one of extreme difficulty and often of extreme sadness. Recently, in this country, the slow evolution of the law has allowed suicide to be no longer a criminal act. The failed suicides—and they may possibly be as ten to one in comparison with those successful—are no longer to be punished for their attempted crimes, but treated with a curative kindness which may assuage their despair. But to help a

* See THE EUGENICS REVIEW. 1960. **52**, 134.

suicide to commit his now non-criminal act does itself remain criminal, and vigorously punishable. The argument is understandable.

Yet, take the matter further, to the realms of euthanasia—that is to say the deliberate desire to take one's own life—an exercise of personal freewill—to take one's own life in the event, usually, of lingering sickness and great pain in old age. If done alone, now no crime has been committed. But in the circumstances where the personal need is likely to be greatest, the capacity and facilities for lone action are often minimal. The Euthanasia Society promotes legislation to ease this difficulty—so far without success. That Society is another body of kindly individuals, convinced of the need to increase personal freedom—the freedom to have medical aid to remove one's life when, in one's personal judgment in old age and sickness, it has grown miserable to excess. The need for legal safeguards is obvious to all: but the opportunity for euthanasia seems a proper freedom to many, and to others a damnable tampering with God's will. In that regard one may add in parenthesis, again, that anaesthetics only a hundred or so years ago were equally condemned by some; and pneumonia used often to be called the poor man's friend.

Conclusion

Thus I have tried to spread before you a whole area of importance within which new knowledge brings new responsibilities. And new responsibilities are already there, whether or no many people have yet appreciated the inevitable consequences of the new knowledge. Within this area of biological concern for our own species we are, on every side, beset with emotions and inhibitions, to speak not at all of ignorance, prejudice and dogma. All these delay the appreciation of what is rational, and impede whatever actions may be sensible.

Blind and dangerously excessive multiplication must, world-wide, be replaced by moderate and deliberate reproduction by thoughtful individuals acting in freedom. There must be appreciation of the astonishing genetic diversity of men and women, and there must be conscious appreciation, too, of the kind of goal for which we strive for all people. And that goal must include appreciation of the worth of all individuals—however varied—and their equality of right to opportunity and freedom. The most dangerous feature of all, as I see it in the present picture, is that excessive multiplication is itself the foremost adversary of personal freedom in almost every way.